

Sam Nguyen

MACHINE LEARNING ENGINEER · DATA SCIENTIST

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Summary

Experienced ML Engineer specialising in NLP and scalable AI platforms. Proficient in Python, PyTorch, Hugging Face, and GCP, with a proven record of delivering AI-driven solutions to enhance user experiences and streamline operations.

Education

University of Sydney

Camperdown, NSW

B.S. in Data Science and Mathematics

Feb 2018 - Nov 2021

- Courses:** Machine Learning, Artificial Intelligence, Statistical Learning, Data Science Ethics and Legalities

Work Experience

TikTok

Sydney, NSW

Machine Learning Engineer

Jul 2024 - Ongoing

- Developed an algorithm to optimise bandwidth usage for CDNs on the TikTok Live platform, achieving a 10% cost reduction and a 8% improvement in network efficiency. (Python, Flask, HIVE, ClickHouse)
- Designed a resource planning algorithm to minimize redundancy in hosting machines for servers, optimising compute and storage usage while reducing operational costs by 15%
- Designed a live network probe for real-time performance monitoring, ensuring system stability and providing reliable data for cross-team strategic deployments

Optus

Macquarie Park, NSW

Machine Learning Engineer

Apr 2022 - Jul 2024

- Integrating Gemini LLM to provide scoring evaluator for Dialogflow responses, enhancing efficiency in customer service. Contributing to a 5% uplift in AI-enabled resolution and a \$4.4M YOY increase in cost savings. (GCP, vertexAI)
- Anomaly detection ML Model on chatbot conversations, resulting in increase of 6% in customer retention and acquisition rates (Hugging Face, Vertex AI, BigQuery).

HelloFresh

Camperdown, NSW

Data Science Intern

Apr 2021 - Nov 2021

- Implemented a forecasting model to predict customer cancellations reducing operational waste by 4% , resulting in an estimated annual savings of \$522K (Python, Pandas, SQLAlchemy).
- Refactored data pipelines to ensure quality for downstream use and demand forecasting accuracy.

Code Create

Online

Tech Mentor

Oct 2020 - Apr 2021

- Write and deliver coding classes to school students online.

Code Camp

NSW, Australia

Head Teacher

Nov 2017 - Apr 2021

- Teach primary school students the fundamentals of computer science and to code their own video games.

Extracurricular

Deloitte Technology Consulting Virtual Internship

2020

Deloitte Virtual Internship on InsideSherpa

Data Science Capstone Project

Camperdown, NSW

University of Sydney

- Developed an eye movement-based Uno playing model.

Microsoft Student Accelerator

Sydney, NSW

Microsoft

- Built a model for identifying spam emails using supervised machine learning.

Viral Vulnerability Analysis

Camperdown, NSW

University of Sydney

Skills

Advanced Machine Learning

Deep Learning, Natural Language Processing (NLP), Reinforcement Learning

Programming Languages

Python (advanced), R, JavaScript, SQL, C++, Java

Machine Learning Technologies

Google Cloud Platform, PyTorch, TensorFlow, Vertex AI, BigQuery, Hugging Face, LangChain

Development Tools & Frameworks

React, HTML/CSS, MySQL, PostgreSQL, Linux, TeX(R Markdown), Git, Terraform, Docker

Data Engineering

Data Pipeline Design, ETL Processes, Data Warehousing, Data Lakes

Leadership & Interpersonal Skills

Team Leadership, Strategic Decision Making, Stakeholder Management, Mentorship, Effective Communication, Problem Solving